

In The CLAIMS

1. (Cancelled).

2. (Cancelled).

3. (Cancelled).

4. (Currently Amended) An automated data capture article, comprising:

(a) a bar code produced in a material having at least one module ~~a usual and customary manner~~, and

(b) at least one additional module within said bar code produced with a thermochromic material, and

whereby, the existing or historical temperature conditions of said bar code can be determined when said bar code is scanned by a bar code reader, and

~~whereby, each thermochromic material responds to a separate temperature range, and~~

whereby, a plurality of codes can be incorporated into the area of a single bar code.

5. (Currently Amended) An automated data capture article, comprising:

a revocable bar code produced entirely with a quandom thermochromic material;

wherein said revocable bar code is disposed on a perishable product; and

whereby, the bar code can be rendered permanently invisible in response to said perishable product being exposed to environmental conditions to notify of an existing or historically environmental condition in an automated fashion.

6. (Currently Amended) An automated data capture article, comprising:

(a) a bar code produced with at least one module formed of a thermochromic

material, and

(b) at least one additional module produced with at least one different
5 thermochromic material within the ~~base~~ bar code,
whereby, each thermochromic material responds to a separate temperature
range, and whereby said bar code can simultaneously display a plurality of
predetermined codes, including a null code, in order to measure and report a series of
temperature variations during a single bar code read.

7. (NEW) A method of producing a bar code, comprising the steps of:
printing bar code modules in a bar code space to define a bar code;
wherein the step of printing the bar code modules includes printing at least
one bar code module with a thermochromic material; and then
5 later detecting whether a change has occurred in the thermochromic material
of the at least one bar code module after the step of printing the bar code modules to
thereby determine a storage temperature history of the bar code.

8. (NEW) The method of producing a bar code of Claim 7, wherein the step
of printing further comprises:
printing the bar code module entirely with a quondam thermochromic
material to define a revocable bar code wherein the bar code can be rendered
5 permanently invisible in response to exposure to temperatures of the storage
temperature history to warn a bar code reader of an existing or historically
undesirable environmental condition.

9. (NEW) The method of producing a bar code of Claim 8, wherein the step
of printing further comprises:
printing at least a second bar code module with at least a second
thermochromic material to produce the bar code;
5 wherein the thermochromic material and the second thermochormic material
responds to separate, respective temperature ranges; and

wherein the bar code can display a plurality of predetermined codes,
including a null code, in order to measure a series of temperature variations to which
the bar code has been subjected after the step of printing.

10 10. (NEW) The method of Claim 8, wherein the step of later detecting
comprises the step of scanning the bar code with a bar code reader.

15 11. (NEW) The method of Claim 10, wherein said step of printing
comprises including a plurality of codes which are incorporated into the bar code
according to response of the thermochromic material to possible temperatures of the
storage temperature history to which the bar code is exposed after the step of
printing.

12. (NEW) The method of Claim 8, wherein said step of printing comprises
including a plurality of codes which are incorporated into the bar code according to
response of the thermochromic material to possible temperatures of the storage
temperature history to which the bar code is exposed after the step of printing.

13. (NEW) A bar code, comprising:

a first bar code portion produced in a bar code space;

a second bar code portion produced with a first thermochromic material; and

wherein said first thermochromic material will change appearance in

5 response to historical temperature conditions to which said first thermochromic material is exposed after printing of said produced bar code, whereby existing or historical temperature conditions of said bar code can be determined when said bar code is scanned by a bar code reader, and whereby a plurality of codes can be incorporated into a single produced bar code.

14. (NEW) A bar code as claimed in Claim 13, further comprising a further bar code portion produced with a second thermochromic material wherein said first thermochromic material and said second thermochromic material respond to different respective temperature ranges.

14. (NEW) The bar code of Claim 13, wherein said second bar code portions comprises:

a revocable bar code portion produced entirely with a quondam thermochromic material, and

5 whereby said revocable bar code portion can be rendered permanently invisible to notify of an existing or historically environmental condition in an automated fashion.

16. (NEW) A bar code printed in a bar code space, said bar code comprising:

a plurality of digit regions disposed in the bar code space, in a preselected spacial relation;

5 one of said digit regions having a temperature module which is disposed in a distinct relative relation within said preselected spacial relation of said plurality of digit regions;

said temperature module having a thermochromic material disposed therein, wherein said thermochromic material is defined such that a color characteristic
10 thereof is responsive to exposure to ambient temperatures relative a predetermined temperature value; and

wherein exposure of the bar code space to the ambient temperatures relative to the predetermined value changes a temperature of said thermochromic material of said temperature module relative to the predetermined temperature value, such that
15 said color characteristic is changed in response to the temperature which changes a value for said temperature module and said digit to enable determining exposure of said bar code to the temperature after said bar code is produced.

17. (NEW) The bar code of Claim 16, wherein said thermochromic material is of a type which undergoes a permanent change in said color characteristic in response to changes in the temperature relative to the predetermined temperature value, after the bar code is produced.

18. (NEW) The bar code of Claim 16, wherein said thermochormic material and said bar code together comprise a second bar code printed in the bar code space initially occupied by said bar code, with said second bar code appearing in response to changes in ambient temperature to which said thermochromic material is exposed
5 after said bar code is produced.

19. (NEW) A method of monitoring environmental conditions of a product during a selected time duration, comprising the steps of:

providing a thermochromic material which in response to exposure to a selected one of the environmental conditions will change state;

5 including a marking of the thermochromic material in a bar code associated with the product, in a substantially fixed relational proximity to the product for the selected time duration; and then, after expiration of the selected time duration,

determining whether the marking of the thermochromic material has changed state to identify whether the product has been exposed to the selected one of the
10 environmental conditions.

20. (NEW) The method of Claim 19, wherein the step of providing comprises providing a thermochromic material which is of a quondom type, such that exposure to the selected one of the environmental conditions results in a permanent change in the state of the thermochromic material.

21. (NEW) The method of Claim 20, wherein the bar code is printed entirely of the thermochromic material, such that the bar code is rendered permanently illegible when exposed to the selected environmental condition.

22. (NEW) The method of Claim 19, wherein the step of providing comprises providing a thermochromic material which is of a type other than a quondom type, such that exposure to the selected one of the environmental conditions results in a reversible change in the state of the thermochromic material.

23. (NEW) The method of Claim 22, wherein a second marking of a quondom type of thermochromic material is included as a second marking in the bar code which is associated with the product, such that exposure to one of the environmental conditions results in a permanent change in the state of the
5 thermochromic material of the second marking.

24. (NEW) The method of Claim 19, wherein a second marking of a quondom type of thermochromic material is included as a second marking in the bar code which is associated with the product, such that exposure to one of the environmental conditions results in a permanent change in the state of the thermochromic material of the second marking.

25. (NEW) The method of Claim 19, wherein the selected environmental condition is exposure to a selected temperature which is outside of a desired temperature range for the product.

26. (NEW) The method of Claim 25, wherein the desired temperature range for the product corresponds to a positional location for the product in a facility.

27. (NEW) The method of Claim 26, wherein the selected time duration is selected to correspond to a time duration running from when the marking of thermochromic material is associated with the product until removal of the product from the facility.

28. (NEW) The method of Claim 27, wherein a second marking of a quondom type of thermochromic material is included as a second marking in the bar code which is associated with the product, such that exposure to one of the environmental conditions results in a permanent change in the state of the thermochromic material of the second marking.